Comparison of Alternatives and Environmental Impacts

The **preferred policy** recognizes that direct control with pesticides and biological treatment is occasionally necessary. Direct control projects are primarily for insects and rarely for diseases. The last large-scale outbreak on department-managed land that required insecticides occurred in 1977. An environmental and economic review is done before any treatment begins; the project must comply fully with the State Environmental Policy Act.

The department does not believe that nonchemical or biological treatment over the long-term can control some of the most serious forest pests. Until these techniques are improved, the department believes it must have options for using both chemical and biological pesticides.

The department's **preferred policy** recognize that low level or endemic forest pest damage may be allowed under certain circumstances. There are times, for instance, when storm damaged-timber will not be salvaged, or when the damaging effects of bark beetles, dwarf mistletoes or bears will be allowed to run their course. The department will take preventive action when excessive damage would affect harvest objectives.

Major insect outbreaks that require control are usually widespread and encompass not only state forest lands but also federal, county and private lands as well. Controlling these outbreaks involves a cooperative effort, usually between the state and the U.S. Forest Service, which acts as the lead agency. Other land owners and managers provide a supporting role. If the department participates in a cooperative effort lead by the federal government, the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) are followed. When only state or private lands are involved, SEPA is used to assess the environmental impacts of the proposed treatment and alternatives.

Alternative 1 (current policy), places more emphasis on controlling insects, diseases and pests, and does not acknowledge that limited amounts of all three can be tolerated on state forest land. The environmental impacts of this option are higher than the others because it places more emphasis on control, which probably involves the use of pesticides.

Alternative 2 uses the same approach as the preferred policy except the use of aerially-applied pesticides is specifically excluded. In effect, the department would limit its options and would exclude this tool in attempting to prevent a major infestation from spreading. This option, too, could have an environmental impact if the tools are inadequate the diseases spread to other forest stands.

Alternative 3, the no-policy option, would not provide much guidance to the department and its managers for dealing with this problem on a day-to-day basis.

In contrast, the department's forest health program (preferred policy) is designed to limit unacceptable damage to trust assets and to produce healthy forests. At present, the department's Integrated Pest Management process is the decision-making tool for implementing this effort. Under this process, the department evaluates a range of techniques and options before taking any action. Techniques range from simple items, such as reforesting logged over areas with trees that are less prone to insect infestations and disease, to more complex solutions, such as changing the spacing between individual trees to limit the ability of pests to infest adjacent trees. The department will evaluate the environmental impacts of its decisions at the time an action is planned. It will conduct an environmental review before any action is taken and will identify necessary mitigation measures.

Policy No. 10: Fire Protection

The preferred policy states:

The department will supplement the state's fire protection program to bring about a net benefit through reduction of significant resource losses from wildfire on department-managed land. (current policy)

One alternative was considered by the department.

Alternative 1: The department will meet the state's basic fire protection requirements but will not supplement these efforts. This alternative amounts to a "no-policy" alternative. Without it, the department would follow basic statutory requirements but would do no more than what the law requires.

Background

The department is responsible for providing fire protection on the 2.1 million acres of state forest land addressed by this plan. The policy, however, only addresses the department's role in providing fire protection for state forest land.

Comparison of Alternatives and Environmental Impacts

Under the **preferred policy** (current policy), the department will initiate supplemental protection measures to reduce losses from wildfire when the cost of these practices is less than the cost of leaving the resources at risk.

These supplemental measures could include the following general activities:

1. Prevention, which involves identifying, planning, and implementing efforts with adjacent land owners to minimize wildfire impacts on state forest land.

2. Pre-suppression, which involves promoting increased use of wood residue and decreasing the accumulation of potentially hazardous fuel, thereby reducing the risk of spreading wildfires.

In addition, the **preferred policy** supplements the basic fire protection program by encouraging cooperative and effective fire protection programs on adjacent lands.

The department's fire protection policy will help reduce negative impacts to trust assets and the environment caused by wildfires. Because of the unpredictable nature of wildfires, a more detailed impact of fire protection efforts cannot be prepared at this time.

Alternative 1, however, would restrict the department's existing fire protection activities. It could cause significant environmental damage at some later date if wildfires begin and/or spread to areas. The department believes the risks of this policy option are too great and are outweighed by a more prudent, long-term policy that seeks to employ cost-effective, fire protection efforts on state forest land.

3.5 DISCUSSION OF FINANCIAL POLICY ALTERNATIVES

Policy No. 11: Managing "On Base" Lands

The preferred policy states:

The department will manage "on base" forest lands at different levels of intensity depending on biological productivity and economic potential. Investment decisions will be made according to expected returns. (current policy)

Three alternatives were considered by the department.

Alternative 1: The department will minimize forestry investment costs on all forest lands through silvicultural systems requiring less intensive management.

Alternative 2: The department will intensively manage all forest lands classified as on base to maximize the sustainable harvest.

Alternative 3, the no-policy option, would allow the department to operate with different standards in different regions.

Background

State forest lands are varied and can be managed for different economic and biological returns. Investment decisions refer to the department's internal investments in state forest land, including road construction and maintenance, the cost to thin or prune stands of trees and other activities that involve department budgets and human resources.

Comparison of Alternatives and Environmental Impacts

The **preferred policy** directs the department to assess the biological and economic potential of management practices on state forest lands (classified as on base) before making investment decisions on forest stands. This policy directs the department to select management practices on a site-by-site basis as opposed to employing a standard set of management practices across all sites. The **preferred policy** recognizes that differences exist in potential returns from investments of different forest sites. Site-specific planning allows the department to match its activities to individual site conditions and uses.

Under the **preferred policy**, the department can better assess the environmental impacts of its activities by examining the biological productivity and economic returns at different sites.

The preferred policy thus allows the department to match the best practice to the site in question. In the long run, the department believes this flexibility will allow it to minimize overall environmental impacts to state forest land. Economic conditions, for instance, may limit the amount of investment (such as roads) that the department may undertake on certain inaccessible or harsh sites.

Alternative 1 requires the department to minimize the costs of managing forest lands. Although a greater proportion of timber revenues would be allocated to the trusts in the near term under this alternative, long-term revenues to the trusts would be less because of lower harvest levels in the future.

Alternative 2 differs from the preferred alternative because it directs the department to employ management practices on all "on base" state forest lands that will produce the greatest yield at the end of a rotation or regulatory cycle. Considerations associated with the economic efficiency of these investments would be subordinate to the goal of maximizing timber volume.

Alternative 3, the no-policy option, would allow the different administrative regions to make their own policies and standards, creating inconsistent practices within the department that could over time reduce trust income.

In contrast, the preferred policy directs the department to assess the biological and economic potential of its management practices on the "on base" forest lands before making investment decisions.

Policy No. 12: Annual Review of Financial Assumptions

The preferred policy states:

The department will review and adjust annually its financial assumptions used in management decisions.

Two alternatives were considered by the department.

Alternative 1: The department will establish fixed financial assumptions for the life of the Forest Resource Plan (a 10-year period). (current policy)

Alternative 2, the no-policy option, would not set a coherent practice for evaluating changes in the economy.

Background

Forest investments (such as the decision to build a road, thin a stand of trees or replant a burnt-over area with special species) are based on analyses which incorporate various economic assumptions. These assumptions can be fixed for a planning period or they can change as economic conditions warrant. Although the department has made numerous economic assumptions in the past, it has not established a clear policy for reviewing or changing these policies more frequently than once a decade (the life of the Forest Resource Plan and its predecessor, the Forest Land Management Program.)

Comparison of Alternatives and Environmental Impacts

The **preferred policy** directs the department to review each year its assumptions about prices, costs, interest rates and other financial factors. Changes in these assumptions during the planning period will reflect national and regional economic conditions as well as anticipated changes in forest products markets.

Alternative 1 more closely resembles the current practice of establishing assumptions. The department does not believe this option is desirable because it is unresponsive to changes in economic cycles, forecasts and forest products markets. Making economic decisions for a long period of time (i.e., 10 years) can lead to increased levels of investment activity (such as new roads) that are unnecessary and can cause damage to the environment.

Alternative 2, the no-policy option, would allow the department to change its assumptions during the course of the plan or to fix a series of assumptions for a number of years, without revisions.

The policy and its alternatives do not have significant adverse impacts on the environment. Specific financial policies may lead to environmental impacts but these will be analyzed later, when they are presented to the Board of Natural Resources as part of land exchanges, timber sales, etc.

3.6 DISCUSSION OF SPECIAL LANDS POLICY ALTERNATIVES

Policy No. 13: Special Ecological Features

The preferred policy states:

The department will identify state forest lands with special ecological features that fill critical gaps in ecosystem diversity, and it will seek legislation and funding to remove these lands from trust ownership.

The department considered two alternatives:

Alternative 1: The department will attempt to capture ecological values by contributing to a broadly-distributed pattern of preserved or managed special lands.

Alternative 2, the no-policy option, would allow the department not to identify lands with special or unique ecological features.

Background

The department has protected special ecological features by buying land and removing it from trust land status. Based upon past experience, the department anticipates that public funds will periodically be made available to provide needed compensation over time, and it intends to use these funds to buy additional special ecological features.

The department has established the Land and Water Conservation Division, to manage these special sites as Natural Area Preserves or as Natural Resource Conservation Areas. At present, about 56,000 acres are in these preserve or conservation areas. Management of these areas are not addressed by the Forest Resource Plan. (The sites are included for information purposes only in Appendix E of the Forest Resource Plan.)

Purchase of additional sites depends upon availability of funding to compensate the trusts. Identification and interim protection of those sites, however, can occur prior to completing the transfer.

Comparison of Alternatives and Environmental Impacts

The **preferred policy** (current policy) allows the department to discharge its responsibilities as a trustee and also as a conservator of public resources. The department will examine specific environmental impacts as individual parcels are identified for preservation. If legislation and funding are secured to remove these lands from trust status, the environmental impacts of timber harvest, road construction and other activity will be greatly reduced.

In Alternative 1, the department would adopt a more broad-brush approach to preserving lands with special features. A wider range of lands would be considered for preservation, but the alternative only requires the department to "attempt" to preserve these lands. Under this alternative, the department would not make a commitment to seek protection for special areas and remove them from trust status.

Furthermore, the alternative focuses on ecological values, a subjective measurement that is often open to interpretation rather than the preferred policy's standard ("fill critical gaps in ecosystem diversity") which is more measurable. This option is weaker than the preferred policy; some areas worthy of preservation would likely be logged if it were implemented.

In Alternative 2, the no policy-option, would fall far short of what the department believes are its responsibilities; under that option, the department would not take the initiative in identifying lands for preservation status. Some areas worthy of preservation would be logged under this option as well.

Policy No. 14: Old Growth Research Area Deferrals

The preferred policy states:

During this planning period, the department will continue to defer from harvest certain old growth research stands in Western Washington to maintain the ability to acquire information on ecological relationships which may affect intensive timber management. (current policy)

One alternative was considered by the department.

Alternative 1, the no-policy option, would allow the department to remove these lands from deferred status and harvest timber at appropriate times.

Background

Under prior policy, certain old growth stands (seral stage trees) were deferred from harvest in Western Washington for research purposes. The department has deferred about 2,000 acres of old growth area deferrals for 10 years.

The department has decided to continue the deferral policy for the old growth research areas. Deferring (postponing) harvesting on these sites will allow the department to retain the option to obtain research information concerning forest productivity that could benefit the trusts. The deferral period will be ten years.

Comparison of Alternatives and Environmental Impacts

The **preferred policy** allows the department to reserve a total of about 2,000 acres for old growth research areas. There are no significant adverse environmental impacts of the preferred policy because timber harvest will be deferred on the acres in question. Research activities, if any, are likely to have a limited or negligible impact and will be evaluated when specific research proposals are submitted to the department for review.

Under Alternative 1, the department could place these areas in the on-base classification and log the timber at appropriate times. This alternative would create significant environmental impacts at the site and would destroy any potential the site had for old growth research.

Policy No. 15: The Genetic Resource

The preferred policy states:

The department will protect and enhance a diverse gene pool of native trees on state forest lands to ensure well-adapted future, commercial forests.

Two alternatives were considered by the department.

Alternative 1: The department will maintain the existing gene pool reserves, but will make no further effort to conserve forest tree gene resources.

Alternative 2: The department will depend on natural stands reserved by other agencies in national parks, state parks and on private lands for a gene pool reserve.

Alternative 3, the no-policy option, would allow the department to establish a gene pool reserve for some years and then change or abolish it without seeking approval from the Board of Natural Resources.

Background

The department currently has deferred from harvest about 2,417 acres of native seed sources. The department believes the trees on this land provide it with a valuable genetic resource.

Comparison of Alternatives and Environmental Impacts

The **preferred policy** allows the department to continue preserving these lands and, in addition, to pursue a variety of strategies to enhance the genetic resources on state forest lands.

Alternative 1, on the other hand, would limit the strategy only to preserving these acres. Not all regions or important species are covered by existing reserved lands. Some gene pool reserves, for instance, are in poor locations. Thus, the effect of this alternative would be to scale back department efforts in this area and limit activities only to the 2,417 acres that have presently been deferred from harvest.

Alternative 2 involves in greater restrictions on department efforts in this area. The 2,417 acres would not be deferred under this alternative and would be placed in the on-base harvest schedule for eventual logging. The department would instead rely on the gene pool reserves maintained by others (public and private entities). These lands, however, are often managed for different purposes (such as wilderness) and might not be compatible with department objectives.

Alternative 3, the no-policy option, would allow the department to pursue inconsistent or changing activities in this area --- reserving one stand but harvesting another. The Board of Natural Resources would not set policy in this area, and the decisions could be left to department managers, perhaps on the region or district level.